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| EXAMINER |
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AGGARWAL, YOGESH K

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| ART UNIT | PAPER NUMBER |
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2615

DATE MAILED: 05/24/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/678,333

Applicant(s)

WATANABE, MIKIO

Examiner

Yogesh K Aggarwal

Art Unit

2615

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03/01/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments, see Amendment pp 2-7, filed 03/01/2004, with respect to the rejection(s) of claim(s) 1-3, 7, 9 under 35 USC 103 (a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found prior art reference Shuichi (JP Patent # 09-037125) in view of Joshua I. Pine (US Patent # 6,714,260).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Shuichi (JP Patent # 09-037125).

[Claim 9]

Shuichi teaches an electronic camera (figure 1), which transmits a captured image to external equipment through wireless communication (Paragraph 14 teaches radiotelephony which transmits information wirelessly through radio waves) comprising: a communication device (figure 1: 5) for stopping wireless oscillation at least during an imaging process (Paragraph 16, figure 2 discloses step 1 when an electric power switch 7 is turned on to supply power to all the circuits except the transmission device 5. Step S3 performs automatic focus suitable exposure action when the image is recorded on the memory 4. During these steps the power is not supplied to the transmission device).

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-3, 7, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuichi (JP Patent # 09-037125) in view of Joshua I. Pine (US Patent # 6,714,260).

[Claim 1]

Shuichi teaches an information recording device (figure 1, Paragraph 14), comprising:

a recorder (figure 1: 4) which can record at least either image or audio information (Paragraph 14) and

a wireless communication device (figure 1: 5) for transmitting said information to external equipment through wireless communication (Paragraph 14 teaches radiotelephony which transmits information wirelessly through radio waves).

Claim 1 differs from Shuichi in that the claim further requires an oscillation section for generating a carrier for said wireless communication device, a controller for controlling the generation and stop of said carrier wherein said controller causes said oscillation section to stop the generation of a carrier at least for a period from the time when said image or audio information is captured to the time when said image or audio information is recorded. It is noted that Shuichi does specifically teach in Paragraph 16, figure 2, and step 1 that when an electric power switch 7 is turned ON, it supplies power to all the circuits except the transmission device 5. Step S3 performs automatic focus and suitable exposure action when the image is recorded on the memory 4. During these steps the power is not supplied to the transmission device. Paragraph 15 of Shuichi teaches that the microcomputer 6 manages the sequence of the whole camera

including the generation and stop of the transmission device. Shuichi further teaches that when the power switch 7 is off, the image transfer using the transmission equipment 5 is enabled (See Paragraphs 7, 8 and 9). Shuichi explicitly fails to teach an oscillation section for generating a carrier for said wireless communication device. However Pine '260 teaches an imager circuit 15 having a master clock frequency oscillator 17 generating a desired carrier frequency for a radio transmission of the composite video signal (Col. 1 lines 66-67, col. 2 lines 1-7 figure 1).

Therefore taking the combined teaching of Shuichi and Pine, it would have been obvious to one skilled in the art at the time of the invention to have been motivated to incorporate an oscillation section for generating a carrier for said wireless communication device taught in Pine into the system taught in Shuichi in order to pick a radio frequency signal by a conventional TV receiver, which can be synthesized on-chip to provide a wireless video link as taught in Pine (Abstract).

[Claim 2]

Shuichi teaches that wherein said controller causes said oscillation section to start the generation of a carrier when said information has been recorded [Shuichi teaches in Paragraph 16, figure 2 that at step S3 suitable exposure action is performed and the image is recorded on the memory 4. Paragraph 17 further teaches that camera power is turned off at step S4. At step S5 CPU 6 checks whether the automatic transmission switch S10 is ON for energizing the transmission device 5. In step S6 the remaining power is checked for transmitting the data file. If the remaining power is enough, the transmission device 5 is energized for carrying out the transmission, which means that the oscillation section starts the generation of a carrier because carrier is part of the transmission device].

[Claims 3 and 7]

Regarding claims 3 and 7 these are method claims corresponding to apparatus claim 1 and 2 respectively. Therefore, claims 3 and 7 are analyzed and rejected as previously discussed with respect to claim 1 and 2.

[Claim 8]

Shuichi further teaches a step of automatically transmitting said recorded information to said external equipment when the generation of said carrier is started [Shuichi teaches in Paragraph 17, figure 2 that in step S6 the remaining power is checked for transmitting the data file. If the remaining power is enough and the switch S10 is ON, the transmission device 5 is energized for automatically carrying out the transmission, which means that the oscillation section starts the generation of a carrier and therefore transmits the recorded information to the external equipment].

5. Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuichi (JP Patent # 09-37125) in view of Joshua I. Pine (US Patent # 6,714,260), as applied to claim 3 above, and further in view of Yokota et al. (US Patent # 5,847,662).

[Claim 4]

Shuichi and Pine fail to teach, "... wherein some information indicating that said carrier is to be stopped is transmitted to said external equipment before the generation of said carrier is stopped". However these limitations are well known in the art as evidenced by Yokota (col. 1 lines 46-65)[Yokota teaches that when the radio card communication apparatus receives a response signal modulated with a second carrier from the radio card, it stops transmitting the first carrier]. Therefore taking the combined teachings of Shuichi, Pine and Yokota as a whole, it would have been obvious to one skilled in the art at the time of the invention to incorporate

Art Unit: 2615

transmitting information indicating that said carrier is to be stopped to said external equipment before the generation of said carrier is stopped allowing the external equipment of having advanced warning of data transmission start/stop from the camera.

[Claim 6]

Shuichi and Pine fail to teach, "... the step of receiving a synchronization signal emitted by external equipment while the generation of said carrier is stopped". However these limitations are well known in the art as evidenced by Yokota (col. 2 lines 6-10)[Yokota teaches that the signal received from the radio card is phase-synchronous (synchronization signal) with the first carrier frequency and while that signal is received the generation of the first carrier is stopped (col. 1 lines 46-65)]. Therefore taking the combined teachings of Shuichi, Pine and Yokota as a whole, it would have been obvious to one skilled in the art at the time of the invention to incorporate receiving a synchronization signal emitted by an external equipment while the generation of said carrier is stopped as taught in Yokota into the system of Shuichi in view of Pine in order to have synchronization between the camera and the external equipment even after the transmission of the carrier is stopped.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shuichi (JP Patent # 09-037125), Joshua I. Pine (US Patent # 6,714,260), Yokota et al. (US Patent # 5,847,662) as applied to claim 4 above in further view of Yoshizawa et al. (US Patent # 4,802,201).

[Claim 5]

Shuichi in view of Pine and Yokota teach the limitations of claim 4 but fail to teach "... causing any external equipment to transmit equipment identification information to another equipment for stopping a carrier; and causing said equipment for stopping a carrier to stop the generation of

Art Unit: 2615

said carrier when it receives said equipment identification information". However these limitations are well known in the art as evidenced by Yoshizawa (Abstract). It is noted that Yoshizawa specifically teaches that when a carrier wave is received from an external equipment and when the identification information contained in that carrier wave coincides with a preassigned identification signal, transmission of a paging signal, which would involve some kind of carrier, is stopped (Abstract). Therefore taking the combined teachings of Shuichi, Pine, Yokota and Yoshizawa as a whole, it would have been obvious to one skilled in the art to modify the external equipment by transmitting equipment identification information to another equipment for stopping a carrier and causing said equipment for stopping a carrier to stop the generation of said carrier when it receives said equipment identification information. Doing so would lead to a power saving type apparatus as taught in Yoshizawa (col. 2 lines 46-49).

7. Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuichi (JP Patent # 09-037125) in view of Yokota et al. (US Patent # 5,847,662).

[Claim 10]

Shuichi teaches that the wireless oscillation is stopped during an imaging process but fails to teach, wherein, "while said wireless oscillation is stopped after the communication with desired external equipment has been established, said communication device is placed into semi-stop state where it can be synchronized with said external equipment for communication therewith by activating a receiving section." However Yokota teaches that these limitations are well known and used in the art. It is noted that Yokota does teach in col. 2 lines 6-10, when the device receives the second carrier it stops transmitting the first carrier (col. 1 lines 40-45) and synchronizes with the first carrier frequency. The Examiner considers the semi-stop state as

receiving a phase-synchronous signal from the external equipment. Therefore taking the combined teaching of Shuichi and Yokota it would have been obvious to one skilled in the art at the time of the invention to have been motivated to incorporate stopping said wireless oscillation after the communication with desired external equipment has been established and placing the communication device into semi-stop state where it can be synchronized with said external equipment for communication therewith by activating a receiving section. The benefit of doing so would be so that a communication apparatus can continuously transmit or receive a vast amount of data at a time at a high speed without intermission as evidenced in Yokota (col. 1 lines 40-45).

[Claim 12]

In light of the teaching from Shuichi and Yokota, it would be obvious to those skilled in the art that the electronic camera would notify said external equipment that it will go into said semi-stop state and after stopping said semi-stop state, it would notify said external equipment that it has been released from said semi-stop state in order to have the external equipment be in a synchronization state with the camera.

Yokota teaches that said external equipment keeps the connection therewith and supplies a synchronization signal in response to the notification of semi-stop state received from said electronic camera (Col. 2 lines 6-10).

8. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shuichi (JP Patent # 09-037125) in view of Yokota et al. (US Patent # 5,847,662) as applied to claim ¹⁰ above in further view of Anderson (US Patent # 6,233,016).

[Claim 11]

Art Unit: 2615

Shuichi in view of Yokota teaches the limitations of claim 9 but fails to teach "... wherein said semi-stop state starts when the communication with desired external equipment is established, when its shutter release button is operated, when an imaging process starts, or when a power-saving operation starts and said semi-stop state ends when an imaging process is finished or when a predetermined operation starts to go into ordinary communication enable state."

However Anderson teaches that these limitations are well known and used in the art. It is noted that Anderson, col. 7 lines 36-39, teaches a semi-stop state, wherein the semi-stop state is read as being started during a state when the power is in the Power-state 4 mode, during which a reduced power is supplied to the camera.

Further with regards to the limitation of said semi-stop state ends when an imaging process is finished or when a predetermined operation starts to go into ordinary communication enable state Anderson teaches that said semi-stop ends during the power-state 2 mode during which an imaging operation is finished (col. 7 lines 44-46). Therefore taking the combined teaching of Shuichi, Yokota and Anderson it would have been obvious to one skilled in the art at the time of the invention to have been motivated to start said semi-stop state when the communication with desired external equipment is established, when its shutter release button is operated, when an imaging process starts, or when a power-saving operation starts and to end said semi-stop state when an imaging process is finished or when a predetermined operation starts to go into ordinary communication enable state. The benefit of doing so would be to effectively and significantly increase the useful life of the batteries as taught in Anderson (col. 3 lines 51-53).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yogesh K Aggarwal whose telephone number is (703) 305-0346. The examiner can normally be reached on M-F 9:00AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Primary Examiner, Ngoc Yen Vu can be reached on (703) 305-4946. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YKA
May 11, 2004


NGOC-YEN VU
PRIMARY EXAMINER